

Alzheimer's Disease Research Center Collaborator Laili Soleimani Leads AI Project to Improve Geriatric Care

With funding from the Alzheimer's Association, Dr. Soleimani and the award-winning Mount Sinai Clinical Data Science team have completed a project with important clinical implications.

Congratulations to Laili Soleimani, MD, MSc, Assistant Professor of Psychiatry, and Alzheimer's Association Fellow. She is leading a project funded by the Alzheimer's Association in collaboration with the award-winning Mount Sinai Clinical Data Science team, which recently won the national Hearst Health Prize awarded for the use of AI in medicine. Results from the study, "Developing NLP-Based Risk Prediction Model for Cognitive Impairment in Geriatric Patients in Acute Care Settings", were presented this summer at AAIC and Dr. Soleimani will present more data at the Fall 2024 NACC meeting in Boston.

Dr. Soleimani said that the goal of the study is "to make Electronic Medical Records (EMR) more useful for healthcare providers across the hospital system. The project involves creating AI models (using word-embedding techniques and vectorized sentences that were inputted into a deep neural network for Named Entity Recognition) that will make EMR work like an alarm of sorts. These models will be able to alert the doctor to the fact that their patient has a high or low risk for cognitive impairment, or a risk for agitation." Results of the study suggested that the models created were able to predict cognitive impairment based on the EMR with good sensitivity and specificity. The next step for such a model is to be implemented in the clinical setting so that it can be part of the clinical flow and can alert a clinician based on EMR that a patient is at high risk for cognitive impairment. This can potentially be a valuable tool for clinicians.



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